

Oil and Gas Filtration

Diesel Spin-On Filter
445R10

Market Application Publication



Application

Power Prime Pump with a Perkins Diesel engine.

This pump is used in various oil field drilling applications where a demand for fast water transfer is required.

The Problem

The customer needed to avoid costly down time due to fuel containment issues. The Racor 445R10 was installed to reduce the likely hood of water and other contaminants reaching the engines fuel system.



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The Solution

A 445R10 diesel spin-on filter was used on the application.

Why was Racor Chosen as the Solution:

The customer recognizes how well the Racor fuel filtration products perform in the toughest environments. By combining proven durability and performance with a cost effective pre-filter, the customer was able to keep critical equipment from having down time in a market segment that does not tolerate any delays. The customer has had great success in adding Racor fuel filtration to the pumps.



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How the solution works:

The Spin-on Series allows for many different options. The see thru collection bowl allows a water-in –fuel condition to be visually identified immediately. The engineered polymer bowls are reusable, impact-resistant and virtually indestructible. Only the element is replaced during a change out. The Spin-on Series allows for bowl upgrades to include a water sensor and a heater for colder climates. A hand primer and electric primer pump are also found in the Spin-on Series.



Replacement Element: R45T

Diesel Spin-On 400 & 600 Series



MEDIUM FLOW						
MODEL	445	460	490	645	660	690
Maximum Flow Rate	45 gph / 170 lph	60 gph / 227 lph	90 gph / 341 lph	45 gph / 170 lph	60 gph / 227 lph	90 gph / 341 lph
Gasoline or Diesel	Diesel	Diesel	Diesel	Both	Both	Both
Vacuum Installation	Yes	Yes	Yes	Yes	Yes	Yes
Pressure Installation	Yes	Yes	Yes	Yes	Yes	Yes
Maximum PSI / kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa
Clean Pressure	0.17 psi	0.39 psi	0.95 psi	0.01 psi	0.05 psi	0.29 psi
Drop PSI / kPa	1.2 kPa	2.7 kPa	6.5 kPa	0.07 kPa	0.34 kPa	2.0 kPa
No. of Ports	4	4	4	7	7	7
Port Size	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm
Integral Primer Pump ²	Yes	Yes	Yes	No	No	No
Replacement Element No. ³	R45	R60	R90	R45	R60	R90
Bowl / See-Thru	Yes	Yes	Yes	Yes	Yes	Yes
Bowl / Metal	No	No	No	No	No	No
Drain Type	Self-Vent	Self-Vent	Self-Vent	Self-Vent	Self-Vent	Self-Vent
Water Sensor Option ⁴	Yes	Yes	Yes	Yes	Yes	Yes
Electric Heater Option ⁴ (12V/24V)	Yes	Yes	Yes	Yes	Yes	Yes
Height	9.3 / 236 mm	11 / 279 mm	11.8 / 300 mm	8.46 / 215 mm	10.2 / 259 mm	11.2 / 284 mm
Width	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm
Depth	4.8 / 121 mm	4.8 / 121 mm	4.8 / 121 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm
Weight	2.5 lbs / 1.1 Kg	2.7 lbs / 1.3 Kg	2.9 lbs / 1.4 Kg	2.35 lbs / 1.07 Kg	2.58 lbs / 1.17 Kg	2.65 lbs / 1.2 Kg

Notes:

- (1) Pressure installations are applicable up to the maximum PSI/ kPa shown.
- (2) Models with integral primer pumps are not recommended for gasoline applications.
- (3) Replacement element micron rating can be specified as "S" for 2 micron, "T" for 10 micron, or "P" for 30 micron.
- (4) Not for use with gasoline applications.



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